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# Fax Cover Sheet

Date: 21 May 2005

DONALD L. CHAMPAGNE  
PRIMARY EXAMINER

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| To: Stephen T. Neal, Esq.                 | From: Donald L. Champagne                      |
| Application/Control Number: 10/020,512    | Art Unit: 3622                                 |
| Fax No.: 408-975-7501                     | Phone No.: 571-272-6717                        |
| Voice No.: 408-975-7500                   | Return Fax No.: 571-273-6717 (informal)        |
| Re: 12959/3                               | CC:  |
| <input type="checkbox"/> Urgent           | <input checked="" type="checkbox"/> For Review |
| <input type="checkbox"/> For Comment      | <input type="checkbox"/> For Reply             |
| <input type="checkbox"/> Per Your Request |  |

Comments:

Following for applicant's advance information is an Office action that will be officially mailed early next week. This action suggests an amendment (para. 16) that would, in my judgment, make the claims allowable.

Please note (para. 17) that applicants can expedite the process of allowance by faxing a complete proposed examiner's amendment to me at 571-273-6717 NO LATER THAN ONE MONTH from the date that the Office action is mailed next week.

Please do caution applicants that this application is among the class that requires Office review by a "second pair of eyes", and that these reviews have been delaying the mailing of a Notice of Allowability by months after it is signed.

Please feel free to telephone me (571-272-6717) if I can be of further help.

Number of pages 7 including this page

## STATEMENT OF CONFIDENTIALITY

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**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4 March 2005 has been entered.
2. Applicant has not amended the claims finally rejected on 19 January 2005. The examiner promised in an interview on 24 March 2005 to comprehensively re-examine that rejection in view of the discussion, and also to search the specification for allowable matter.
3. The review of the specification found the claims to be enabled by the spec. The former rejection under 35 USC 112, first para., has been withdrawn. The examiner found the final rejection over the prior art to be sound, so it is repeated below with reply at para. 10 and 14 to some arguments raised by applicants during the interview. Likely allowable matter is identified below at para. 16.

***Specification***

4. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." While the spec. is generally in minimum compliance, it does not explain the acronym "IDGM" first introduced at para. [0104] of the published spec., US 20020133490A1. An explanation of this acronym should be added to para. [0104] or elsewhere as appropriate. In addition, para. [0048] refers to an "IDM" calculation algorithm, while para. [0107] (first line) refers to the same thing as an "IDGM" calculation algorithm. One or both of these references to Fig. 10 should be corrected.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-7, 9-12 and 27-30 are rejected under 35 U.S.C. 103(a) as obvious over Salgonicoff (US pat. 5,734,720) in view of Jenkins (US pat. 6,285,983).
7. Salgonicoff teaches (independent claim 1, 27 and 30) collecting data associated with at least one set top box (col.6 lines 41-43); deriving at least one *customer profile* (user model) for each set top box based on the collected data (col. 6 lines 46-49); storing the user model for later retrieval (col. 6 lines 61-63 and col. 9 lines 33-37); selecting content and content attributes to be delivered to at least one set top box, delivering said content and attributes to the set top box, and causing the content to be presented by the set top box (*for receipt on the customer's television*) when a correlation (*comparison of customer profiles and content profiles or the agreement matrix determining step*) exists between the content attributes and the user model associated with the set top box (col. 4 lines 57-64, col. 3 lines 8-12 and col. 5 lines 3-6, 10-11 and 59-63).
8. Salgonicoff does not explicitly teach storing an identifier corresponding to the set top box from which the user model is derived. However, under the principles of inherency (MPEP § 2112.02), since the reference invention necessarily performs the method claimed, the method claimed is considered to be anticipated by the reference invention. As evidence tending to show inherency, it is noted that the reference does teach polling the set top boxes (col. 6 line 65), which would be impossible if an address/identifier for the box had not been stored.
9. Salgonicoff does not teach anonymously collecting data, and (claims 4 and 28) removing all personally identifiable information from said data before allowing said data to be used. Jenkins teaches (col. 3 lines 22-28) transmitting data to a privacy server, which removes all personally identifiable information from said data before allowing said data to be used, and reads on anonymously collecting data. Because Jenkins teaches that the invention overcomes privacy concerns (col. 2 lines 6-10), it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the teachings of Jenkins to those of Salgonicoff.
10. Applicants argued during the interview that Salgonicoff requires individual household data. Applicant is reading Salgonicoff selectively. A reference is available for all that it teaches.

The Salgonicoff invention can be used without prior knowledge of the household being monitored (col. 11 line 60 to col. 12 line 3) by, for example, setting the initial customer (household) profile to "a profile typical of the customer's zip code".

11. Salgonicoff also teaches claim 3 (col. 6 lines 54-55); claim 5 (col. 24 lines 32-34); claims 6-7 (col. 4 lines 49-51); claim 10 (col. 25 lines 3-7); and claim 11 (col. 6 lines 15-39).
12. Salgonicoff also teaches: (claims 9 and 10) that content is changed based on feedback from the customer, including when a program is not selected by the customer (col. 6 lines 41-43 and col. 7 lines 10-12), which reads on repeating the content until the user has experienced said content, and said content must be experienced before user selected content can be experienced.
13. Claims 8, 13-15 and 19-22 are rejected under 35 U.S.C. 103(a) as obvious over Salgonicoff in view of Gerace (US pat. 5,848,396). Salgonicoff does not teach that the user model is derived using an inverse demographic matrix (IDM) method. Gerace teaches (col. 2 lines 43-48) a user model derived using "regression analysis", which reads on an inverse demographic matrix (IDM) method. Because regression analysis/IDM is commonly known to be a very efficient means for summarizing data, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the teachings of Gerace to those of Salgonicoff.
14. Applicant argued during the interview that the regression analysis of Gerace is not the instant invention's inverse demographic matrix method. But the specification does not have a "clear definition"<sup>1</sup> of "the IDM method". During the interview the examiner understood that the IDM method was defined by equations (1) and (2) in the right column of p. 9 of the published spec., as used to estimate the coefficients  $v_i$ . That method of estimating

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<sup>1</sup> Unless a term is given a "clear definition" in the specification (MPEP § 2111.01), the examiner is obligated to give claims their broadest reasonable interpretation, in light of the specification, and consistent with the interpretation that those skilled in the art would reach (MPEP § 2111). An inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" (MPEP § 2111.01.III). A "clear definition" must establish the metes and bounds of the terms. A clear definition must unambiguously establish what is and what is not included. A clear definition is indicated by a section labeled definitions, or by the use of phrases such as "by xxx we mean"; "xxx is defined as"; or "xxx includes, ... but does not include ...". The spec. does, for example, give clear definitions of some terms at published spec. para. [0110] to [0124], but a clear definition of "IDM method" is not included.

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coefficients is widely call regression analysis, or multiple linear regression to be more precise (Wesolowsky).

15. Claims 16-18 and 23-26 are rejected under 35 U.S.C. 103(a) as obvious over Salgonicoff in view of Jenkins and further in view of Gerace, for the reasons given above. Independent claim 16 is essentially a combination of claims 4 and 8, and independent claim 23 is essentially a combination of claims 4, 8 and 9.

***Suggestion of Allowable Subject Matter***

16. The specification discloses a method for deriving an individual user/STB model as the IDM method for estimating the demographic coefficients  $v_i$  (para. [0126]-[0135], [0139] and [0275]) and applying said general (zip-code-wide) model to a particular set top box (para. [0278] and [0279]). In particular, the following amendment to the first three steps of claim 1 would make claim 1 allowable over the prior art made of record:

“anonymously collecting event data associated with at least one set top box in a defined region in a privacy compliant manner;

deriving at least one user model for each set top box based on in said region by using the collected event data with demographic data for the population in the region to estimate the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region, said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;

selecting content and associated content attributes to be delivered to at least one set-top-box of said set top boxes in the region;”.

17. To expedite allowance, applicant may, within one month of the date of mailing of this Office action, informally fax an examiner's amendment to the examiner at 571-273-6717, clearly marking the transmission as a PROPOSED EXAMINER'S AMENDMENT, incorporating the substance of the amendment suggested in para. 16 above, said proposed amendment also amending the specification as required by para. 4 above.

**Conclusion**

18. The references made of record and not relied upon are considered pertinent to applicant's disclosure. The US patent prior art that is closest to the suggested amendment (para. 16 above) is Eldering et al. (US006684194B1). Eldering et al. teaches a user model identifying the demographic specification that most closely matches viewing behavior at the particular set top box (col. 3 lines 9-11), but does not teach or suggest estimating the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region. WO 9960789 A1 and Van Tassell are respectively the closest foreign patent and non-patent prior art. Each generally teaches identifying the demography of individual subscribers/set top boxes, but do not teach or suggest estimating the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region.
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Champagne whose telephone number is 571-272-6717. The examiner can normally be reached from 6:30 AM to 5 PM ET, Monday to Thursday. The examiner can also be contacted by e-mail at [donald.champagne@uspto.gov](mailto:donald.champagne@uspto.gov), and *informal* fax communications (i.e., communications not to be made of record) may be sent directly to the examiner at 571-273-6717.
20. The examiner's supervisor, Eric Stamber can be reached on 571-272-6724. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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22. **ABANDONMENT** – If examiner cannot by telephone verify applicant's intent to continue prosecution, the application is subject to abandonment six months after mailing of the last Office action. The agent, attorney or applicant point of contact is responsible for assuring that the Office has their telephone number. Agents and attorneys may verify their registration information including telephone number at the Office's web site, [www.uspto.gov](http://www.uspto.gov). At the top of the home page, click on Site Index. Then click on Agent & Attorney Roster in the alphabetic list, and search for your registration by your name or number.

Donald L. Champagne  
Primary Examiner  
Art Unit 3622

21 May 2005